

Appl. No.: 10/531,955
Reply to Office Action of: 12/14/2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for the electrical connection of an electrical conductor to a contact element with the following steps:

introduction of the electrical conductor ensheathed with an insulation between two legs of the contact element,

application of a welding device to both legs,

conducting the welding process by switching on the welding current, whereby wherein the heat introduced during the welding process breaks down the insulation of the electrical conductor and leads to a solid mechanical and electrical connection of the conductor with the contact element, wherein the two legs of the contact element are located on respective opposite sides of the electrical conductor, and wherein each leg is welded to the electrical conductor only on its respective opposite side of the electrical conductor.

2. (Original) The method according to claim 1, further characterized in that the welding process is a resistance welding.

3. (Previously presented) The method according to claim 2, further characterized in that at the beginning of the welding

Appl. No.: 10/531,955
Reply to Office Action of: 12/14/2005

process, the welding current flows over the two legs of the contact element and its connection point.

4. (Previously presented) The method according to claim 1, further characterized in that the welding device is applied to the outer sides of the two legs lying opposite the conductor.

5. (Previously presented) The method according to claim 4, further characterized in that a welding stamp of the welding device is applied in each case to one outer side of contact element.

6. (Previously presented) The method according to claim 1, further characterized in that the contact element is connected to a plug connector.

7. (Previously presented) The method according to claim 1, further characterized in that the conductor ensheathed with an insulation is a flat flex conductor.

8. (Previously presented) The method according to claim 1, further characterized in that the contact element is bent in an S-shape.

9. (Previously presented) The method according to claim 1, further characterized in that the contact element is bent in a C-shape.

10. (Previously presented) A plug connector with a contact element and an electrical conductor, which is connected to the contact element, is hereby characterized in that the connection between contact element and electrical conductor was produced according to a method according to claim 1.

Appl. No.: 10/531,955
Reply to Office Action of: 12/14/2005

11. (New) The method according to claim 1 wherein the electrical conductor comprises an electrically conductive substantially flat core and substantially flat sheets of the insulation on opposite sides of the core.

12. (New) The method according to claim 1 wherein the legs comprise two substantially flat, substantially parallel legs.

13. (New) The method according to claim 12 wherein the legs are substantially flat, substantially parallel both before and after conducting the welding process.

14. (New) The method according to claim 1 wherein the welding device comprises substantially flat electrode tips.

15. (New) The method according to claim 1 wherein a distance between electrode tips of the welding device at a start of the welding process is smaller than a length of the legs.

16. (New) A method of connecting an electrical conductor to a contact element comprising:

inserting the electrical conductor into the contact element, wherein the contact element comprises two substantially parallel legs, wherein the electrical conductor comprises an electrically conductive substantially flat core and insulating material surrounding the core, and wherein the electrical conductor is inserted between the legs; and

applying a welding process to the legs to melt at least a portion of the insulating material between the legs and

Appl. No.: 10/531,955
Reply to Office Action of: 12/14/2005

directly attach the legs to opposite respective sides of the flat core.

17. (New) A method of connecting an electrical conductor to a contact element comprising:

inserting the electrical conductor into the contact element, wherein the contact element comprises two legs, wherein the electrical conductor comprises an electrically conductive core and insulating material surrounding the core, and wherein the electrical conductor is inserted between the legs; and

applying a welding process to the legs by a welding device to melt at least a portion of the insulating material between the legs and directly attach the legs to opposite respective sides of the core, wherein a distance between furthest portions of opposing electrode tips of the welding device at a start of the welding process is smaller than a length of insertion of the core along the legs.

18. (New) A method as in claim 17 wherein the core comprises a substantially flat core and the insulating material comprises substantially flat sheets on opposite sides of the core, and wherein the legs comprise substantially flat legs such that the welding of the legs to the core forms a substantially flat sandwich structure.

19. (New) A method as in claim 17 wherein the legs are directly electrically and mechanically connected to each other by the core.